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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,058	11/01/2001	George V. Paul	CYB-07004/03	6683

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EXAMINER	
CHOOBIN, BARRY	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/004,058	PAUL ET AL.	
	Examiner	Art Unit	
	Barry Choobin	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *March 4, 2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on March 4, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The abstract of the disclosure is objected to because in line 13 the word "whatever" is indefinite. Correction is required. See MPEP § 608.01(b).

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because fig.7, is not a formal drawing and fig.3 is not legible. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5, 7-10, 12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Pryor (US 6,766,036).

As to claim 1, Pryor discloses a camera based man machine interface comprising the steps of:

sensing the position or motion of a driver or passenger of a vehicle (fig.10A, and column 14, lines 47-54 wherein TV camera used to sense seat position, head rest position and physical positions or motions of both the car controls and the driver or passengers); and controlling a device associated with the operation safety or comfort of the vehicle in accordance with the sensed position or motion (column 14, lines 21-45 wherein air temperature and the like can be controlled corresponding to at least comfort operation in this claim).

As to claim 2, Pryor discloses the method of claim 1 (see claim 1 above), wherein the motion includes a hand or body gesture (fig.1 and column 3, lines 23-32 wherein targets are associated with any of the fingers, hand, feet and head and column 7, lines 14-32).

As to claim 3, Pryor discloses the method of claim 1 (see claim1 above), wherein the device is associated with entertainment (column 13, line 57 through column 14, line

13 wherein an appropriate sound if desired is obtainable form the speakers 950, and the above control aspects can be used in a car as well).

As to claims 5 and 12, Pryor discloses the method of claims 1 and 8 (see claims 1 and 8) including the deployment of an airbag based on the position, velocity or acceleration of a person in a vehicle seat (column 14, line 65 through column 15 line 13 wherein information such as position of the head of the driver in case of an accident can be used to control airbag deployment, or head rest position prior or during an accident).

As to claim 7, Pryor discloses the method of claim 1 (see claim 1 above), further including the control of a device external to the vehicle (column 11, line 56 through column 13, line 11 and fig.8A-8B, wherein a device which can also be used to perform a control function by determining its position, orientation, pointing direction or other variable with respect to one or more external objects, using an optical sensing apparatus such as TV camera located externally to sense the hand held device).

As to claim 8, Pryor discloses system for controlling one or more vehicular-related devices, comprising (Pryor discloses both a method and apparatus, see claim 1); a device for sensing the position or motion of the head, body, or other body parts of a driver or passenger of a vehicle (see claim 1);
a tracking system for tracking the head, body, or other body parts (fig.2 and fig.3);
a gesture/behavior recognition system for recognizing and identifying the person's

motions (fig.15 and column 22 lines 1-5 wherein the human expressions and hand or body gestures are used in the game and column 14, lines 47-54 wherein motions of both the car controls and the driver or passengers are used); and a controller for controlling devices associated with the vehicle, whether under active or passive control by the vehicle occupant (this limitation is disclosed by Pryor at column 14, lines 13-34 wherein the action is actuated by exposing the target to the camera).

As to claim 9, Pryor discloses the system of claim 8 (see claim 8, above), wherein the device for sensing is a video camera (fig.10A, element 1020).

As to claim 10, Pryor discloses the method of claim 8 (see claim 8 above) wherein the device is associated with entertainment (column 14, lines 24-34 wherein turning on the radio corresponds to entertainment).

As to claim 14, Pryor discloses the method of claim 8 (see claim 8 above) including the control of a device external to the vehicle (column 11, line 56 through column 13, line 11 and fig.8A-8B wherein a device which can also be used to perform a control function by determining its position, orientation, pointing direction or other variable with respect to one or more external objects, using an optical sensing apparatus such as TV camera located externally to sense the hand held device).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4, 6, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor in view of Breed et al (US 2003/0209893).

As to claim 4, Pryor discloses the method of claim 1 (see claim 1 above).

However, Pryor does not expressly disclose the adjustment of car seating restraints based on head position.

Breed et al disclose occupant sensing system comprising an optical classification method for classifying an occupant in a vehicle by acquiring images of the occupant from a camera; further comprising the adjustment of car seating restraints based on head position (see Breed et al page 126, paragraph 1646, wherein the position of the head of the person are used to control the deployment of the airbag or occupant restraint system).

Breed et al is combinable with Pryor because they both are from the same field of endeavor of sensing position of an occupant in a vehicle and controlling seat positions and deployment of air bag.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Pryor with the adjustment of car seating restraints based on

head position as thought by Breed et al in order to classify an occupant of a vehicle for the purpose of controlling a vehicular system based on the sensed characteristics or classification.

The suggestion/motivation for doing so would have been that after the identification and position of the objects are obtained, one or more systems in the vehicle, such as an occupant restraint device or system, a mirror adjustment system, a seat adjustment system, a steering wheel adjustment system, a pedal adjustment system, a headrest positioning system, a directional microphone, an air-conditioning/heating system, an entertainment system, may be affected based on the obtained identification (see Breed et al page 126, paragraph 1645).

Therefore, it would have been obvious to combine Breed et al with Pryor to obtain the invention as specified in claim 4.

As to claim 11, the limitations of claim 11 are analogous to limitations of claim 4 above. Accordingly claim 11 is similarly analyzed and rejected as claim 4.

As to claim 6, Pryor discloses the method of claim 5 (see claim 5 above).

Pryor does not expressly disclose the control of the velocity or orientation of the airbag based upon body position, velocity or acceleration.

Breed et al disclose determining the position, velocity or size of an occupant in a motor vehicle and to utilize this information to control the rate of gas generation, or the amount of gas generated, by an airbag inflator system or otherwise control the flow of

gas into or out of an airbag, corresponding to the control of the velocity or orientation of the airbag based upon body position, velocity or acceleration (see Breed et al page 33, paragraph 0565)

Breed et al is combinable with Pryor because they both are from the same field of endeavor of sensing position of an occupant in a vehicle and controlling seat positions and deployment of air bag.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Pryor with the control of the velocity or orientation of the airbag based upon body position, velocity or acceleration as thought by Breed et al (Smart airbags).

The suggestion/motivation for doing so would have been to improve the systems, which detect the presence of occupants, and to eliminate the disturbance and possible harm of unnecessary airbag deployments.

Therefore, it would have been obvious to combine Breed et al with Pryor to obtain the invention as specified in claim 6.

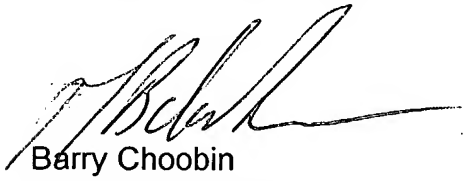
As to claim 13, the limitations of claim 13 are analogous to limitations of claim 6 above. Accordingly claim 13 is similarly analyzed and rejected as claim 6.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Barry Choobin
November 2, 2004